

Design						
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Children design purposeful, functional, appealing products for themselves and other users based on design criteria. They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.		Children use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.		Children use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	
	a) Children can use their knowledge of existing products and their own experience to help generate their ideas.		a) Children can identify the design features of their products that will appeal to intended customers.		a) Children can use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market.	
	b) Children can design products that have a purpose and are aimed at an intended user.		b) Children can use their knowledge of a broad range of existing products to help generate their ideas.		b) Children can use their knowledge of a broad range of existing products to help generate their ideas.	
	c) Children can explain how their products will look and work through talking and simple annotated drawings.		c) Children can design innovative and appealing products that have a clear purpose and are aimed at a specific user.		c) Children can design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user.	
	d) Children can design models using simple computing software.		d) Children can explain how particular parts of their products work.		d) Children can explain how particular parts of their products work.	
	e) Children can plan and test ideas using templates and mock-ups.		e) Children can use annotated sketches and cross-sectional drawings to develop and communicate their ideas.		e) Children can use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas.	
	f) Children can understand and follow simple design criteria		f) Children can when designing, explore different initial ideas before coming up with a final design.		f) Children can generate a range of design ideas and clearly communicate final designs.	
	g) Children can work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment.		g) Children can when planning, start to explain their choice of materials and components including function and aesthetics.		g) Children can consider the availability and costings of resources when planning out designs.	
			h) Children can test ideas out through using prototypes.		h) Children can work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment.	
			i) Children can use computer-aided design to develop and communicate their ideas.			
			j) Children can develop and follow simple design criteria.			
			k) Children can work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment.			

Year 5						
Attainment	1	2	3	4	5	
<b>Design and Technology in Reception</b> Children select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). They select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.					Children select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately. They select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	
	<b>Plan:</b>					
		a) Children can with support, follow a simple plan or recipe.		d) Children can with growing confidence, carefully select from a range of tools and equipment, explaining their choices.		c) Children can independently plan by suggesting what to do next.
		b) Children can begin to select from a range of hand tools and equipment, such as scissors, gravers, sawers, utility knives, jigsaw.		e) Children can select from a range of materials and components according to their functional properties and aesthetic qualities.		f) Children can with growing confidence, select from a wider range of tools and equipment, explaining their choices.
	c) Children can select from a range of materials, textiles and components according to their characteristics.		f) Children can place the main stages of making in a systematic order.		g) Children can select from a range of materials and components according to their functional properties and aesthetic qualities.	
					h) Children can create step by step plans in a guide to making.	
<b>Practical Skills &amp; Techniques:</b>						
Children use one-handed tools and equipment, e.g. knives, utility in pairs with their blades... (Moving & Handling 30-55)	d) Children can learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures.		d) Children can learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures.		e) Children can learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures.	
Children understand that equipment and tools have to be used safely (Health & Safe Care 30-45)	c) Children can use a range of materials and components, including fastenings.		e) Children can use a wider range of materials and components, including construction materials and fastenings.		f) Children can independently take exact measurements and mark out, to within 1 millimetre.	
Children use simple tools to effect changes to materials. (Moving & Handling 40-45)	f) Children can with help, measure and mark out.		f) Children can with growing independence, measure and mark out to the nearest cm and millimetre.		g) Children can use a full range of materials and components, including construction materials and fastenings, and mechanical components.	
Children handle tools, safely, construction and suitable materials using safe and correct methods (Moving & Handling 40-45)	g) Children can cut, shape and score materials with some accuracy.		g) Children can cut, shape and score materials with some degree of accuracy.		h) Children can cut a range of materials with precision and accuracy.	
Children show understanding of the need for safety when handling the challenges and consider and manage any risks. (Health & Safe Care 40-45)	h) Children can assemble, join and combine materials, components or ingredients.		h) Children can assemble, join and combine materials and components with some degree of accuracy.		i) Children can shape and score materials with precision and accuracy.	
Children can demonstrate how to cut, shape and join fabric to make a simple product. (Health & Safe Care 40-45)	i) Children can demonstrate how to cut, shape and join fabric to make a simple product.		i) Children can demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product.		j) Children can assemble, join and combine materials and components with accuracy.	
Children practice some appropriate safety measures without direct supervision. (Health & Safe Care 40-45)	j) Children can manipulate fabric in simple ways to create the desired effect.		j) Children can join textiles with an appropriate sewing technique.		k) Children can demonstrate how to measure, make a basic allowance, label, join, cut, shape and join fabric with precision to make a more complex product.	
Children handle equipment and tools safely (Moving & Handling 40-45)	k) Children can use a basic sewing stitch.		k) Children can begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, topstitch, fabric paints and digital graphics.		l) Children can join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch.	
Children understand how to use their joinery (Joining & Using Media & Materials 30-35)	l) Children can cut, join and grade ingredients, including measuring and weighing ingredients using measured spoons.				m) Children can refine the finish using techniques to improve the appearance of their product, such as sanding or a steam press colour call after roughly cutting and a shape.	
Children use various construction materials (Joining & Using Media & Materials 30-35)	m) Children can begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.					
Children begin to construct, starting from a simple plan and incorporating sewing techniques and creating simple (Joining & Using Media & Materials 30-35)						
Children can construction pieces together to make and balance (Joining & Using Media & Materials 30-35)						
Children understand that different media can be utilised to create new effects (Joining & Using Media & Materials 30-35)						
Children manipulate materials to achieve a given effect (Joining & Using Media & Materials 30-35)						
Children construct with purpose a 3D, using a variety of resources (Joining & Using Media & Materials 30-35)						
Children can simple tools and techniques (completing and appropriately) (Joining & Using Media & Materials 30-35)						
Children can investigate resources for their work (Joining & Using Media & Materials 30-35)						
Children select tools and techniques (Joining & Using Media & Materials 30-35)						
Children apply and explore a variety of materials, tools and techniques, experimenting with colour, shape, texture, form and function (Joining & Using Media & Materials 30-35)						
Children develop preferences for forms of expression (Joining & Using Media & Materials 30-35)						
Children create simple representations of forms, people and objects (Joining & Using Media & Materials 30-35)						
Children understand they have used about media and materials in original ways (Joining & Using Media & Materials 30-35)						
Children describe their own ideas, thoughts and feelings through design and technology (Joining & Using Media & Materials 30-35)						

Evaluate	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Reception						
	Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria.		Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. They understand how key events and individuals in design and technology have helped shape the world.		Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. They understand how key events and individuals in design and technology have helped shape the world.	
	a) Children can explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations.		a) Children can explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose.		a) Children can complete detailed competitor analysis of other products on the market.	
	b) Children can explain positives and things to improve for existing products.		b) Children can explore what materials/ingredients products are made from and suggest reasons for this.		b) Children can critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make.	
	c) Children can explore what materials products are made from.		c) Children can consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product.		c) Children can evaluate their ideas and products against the original design criteria, making changes as needed.	
	d) Children can talk about their design ideas and what they are making		d) Children can evaluate their product against their original design criteria.			
	e) Children can as they work, start to identify strengths and possible changes they might make to refine their existing design.		e) Children can evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.			
	f) Children can evaluate their products and ideas against their simple design criteria.					
	g) Children can start to understand that the iterative process sometimes involves repeating different stages of the process.					

Technical Knowledge		Y1	Y2	Y3	Y4	Y5	Y6
Reception							
<p>Design and Technology in Reception incorporates many areas of the Early Years Foundation Stage curriculum. The children are encouraged to ask questions about the world around them and discover how things work, develop their making skills and handling of tools safely and with increasing control and have opportunities to explore a variety of construction toys, materials, tools and products. These experiences, both indoors and outdoors, engage the children's natural curiosity and provide firm foundations for later work in design and technology, as they progress throughout our school.</p>	<p>Children build structures, exploring how they can be made stronger, stiffer and more stable. They explore and use mechanisms [e.g. levers, sliders, wheels and axles], in their products.</p>	<p>Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>They understand and use mechanical systems in their products [e.g. gears, pulleys, cams, levers and linkages].</p> <p>They understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors].</p> <p>They apply their understanding of computing to program, monitor and control their products.</p>	<p>Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>They understand and use mechanical systems in their products [e.g. gears, pulleys, cams, levers and linkages].</p> <p>They understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors].</p> <p>They apply their understanding of computing to program, monitor and control their products.</p>				
<p>Children talk about why things happen and how things work. (The World - 30-50)</p>	<p>a) Children can build simple structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>a) Children can understand that materials have both functional properties and aesthetic qualities.</p>	<p>a) Children can apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products.</p>				
<p>Children look closely at similarities, differences, patterns and change. (The World - 40-60)</p>	<p>b) Children can talk about and start to understand the simple working characteristics of materials and components.</p>	<p>b) Children can understand and demonstrate how mechanical and electrical systems have an input and output process.</p>	<p>b) Children can explain how mechanical systems, such as cams, create movement and use mechanical systems in their products.</p>				
<p>Children show an interest in technological toys with knobs or pulleys, or real objects. (Technology - 30-50)</p>	<p>c) Children can explore and create products using mechanisms, such as levers, sliders and wheels.</p>	<p>d) Children can make and represent simple electrical circuits, such as a series and parallel, and components to create functional products.</p>	<p>d) Children can apply their understanding of computing to program, monitor and control a product.</p>				
<p>Children show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movements or new images. (Technology - 30-50)</p>		<p>e) Children can explain how mechanical systems such as levers and linkages create movement.</p>					
		<p>f) Children can use mechanical systems in their products.</p>					

Cooking & Nutrition		Y1	Y2	Y3	Y4	Y5	Y6
<p><b>Reception</b></p> <p>Design and Technology in Reception incorporates many areas of the Early Years Foundation Stage curriculum. The children are encouraged to ask questions about the world around them and discover how things work, develop their making skills and handling of tools safely and with increasing control and have opportunities to explore a variety of construction toys, materials, tools and products. These experiences, both indoors and outdoors, engage the children's natural curiosity and provide firm foundations for later work in design and technology, as they progress throughout our school.</p>	<p>Children use the basic principles of a healthy and varied diet to prepare dishes. They understand where food comes from.</p>	<p>Children understand and apply the principles of a healthy and varied diet. They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>Children understand and apply the principles of a healthy and varied diet. They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>				
	<p>a) Children can explain where in the world different foods originate from.</p>	<p>a) Children can start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world.</p>	<p>a) Children can know, explain and give examples of food that is grown (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world.</p>				
	<p>b) Children can understand that all food comes from plants or animals.</p>	<p>b) Children can understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically.</p>	<p>b) Children can understand about seasonality, how this may affect the food availability and plan recipes according to seasonality.</p>				
	<p>c) Children can understand that food has to be farmed, grown elsewhere (e.g. home) or caught.</p>	<p>c) Children can with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven.</p>	<p>c) Children can understand that food is processed into ingredients that can be eaten or used in cooking.</p>				
<p>Children eat a healthy range of foodstuffs and understands the need for variety in food. (Health &amp; Self-Care - 40-60)</p>	<p>d) Children can name and sort foods into the five groups in the Eatwell Guide.</p>	<p>d) Children can use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking.</p>	<p>d) Children can demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p>				
<p>Children show some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health. (Health &amp; Self-Care - 40-60)</p>	<p>e) Children can understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why.</p>	<p>e) Children can explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes.</p>	<p>e) Children can demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling.</p>				
<p>Children know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe. (Health &amp; Self-Care - ELG)</p>	<p>f) Children can use what they know about the Eatwell Guide to design and prepare dishes.</p>	<p>f) Children can understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body.</p>	<p>f) Children can explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes.</p>				
		<p>g) Children can prepare ingredients using appropriate cooking utensils.</p>	<p>g) Children can adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma.</p>				
		<p>h) Children can measure and weigh ingredients to the nearest gram and millilitre.</p>	<p>h) Children can alter methods, cooking times and/or temperatures.</p>				
		<p>i) Children can start to independently follow a recipe.</p>	<p>i) Children can measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p>				
		<p>j) Children can start to understand seasonality.</p>	<p>j) Children can independently follow a recipe.</p>				